

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-7 (Canceled)

8. (Currently Amended) A crystal of *Helicobacter pylori* (*H. pylori*) glutamate racemase (MurI) of SEQ ID NO:2 complexed with a glutamate substrate ~~The crystal of claim 6~~, wherein the substrate binding site of *H. pylori* MurI comprises amino acid residues: Ser8, Cys70, Thr72, Thr116, Thr119, Glu150, Cys181, Thr182, and His183 of SEQ ID NO: 2.

9. (Currently Amended) A crystal of *Helicobacter pylori* (*H. pylori*) glutamate racemase (MurI) of SEQ ID NO:2 complexed with a glutamate substrate ~~The crystal of claim 6~~, wherein the intermolecular dimer interface of *H. pylori* MurI comprises amino acid residues: Ser34, Ala35, Arg36, Val37, Pro38, Tyr39, Gly40, Thr41, Lys42, Asp43, Pro44, Thr46, Phe50, Lys117, Asn121, Ser143, Leu144, Pro147, Leu148, Glu150, Glu151, Ser152, Ile153, Gly157, Leu158, Thr161, Cys162, Tyr165, Tyr166, Ser239, Gly240, Asp241, and Trp244 of SEQ ID NO: 2.

10. (Currently Amended) A crystal of *Helicobacter pylori* (*H. pylori*) glutamate racemase (MurI) of SEQ ID NO:2 complexed with a glutamate substrate ~~The crystal of claim 6~~, wherein the intradomain interface comprises amino acid residues: Asp7, Ser8, Gly9, Val10, Gly11, Gly12, Phe13, Ser14, Val15, Ser18, Lys21, Ala22, Val37, Pro38, Tyr39, Gly40, Thr41, Lys42, Asp43, Pro44, Ile47, Ala69, Cys70, Asn71, Thr72, Ser74, Ala75, Leu76, Gly91, Val92, Gly211, Asp212, Ala213, Ile214, Val215, Glu216, Tyr217, Leu218, Gln219, Gln220, Lys221, Glu251, Trp252, Leu253, Lys254, and Leu255 of a first domain, and amino acid residues Ile93, Glu94, Pro95, Ser96, Ile97, Leu98, Ala99, Ile100, Arg102, Gln103, Thr116, Lys117, Ala118, Thr119, Ser122, Asn123, Ala124, Tyr125, Ala128, Gln131, Gln132, Ser143, Val146, Pro147, Ile149, Glu150, Glu151, Ser152, Ile178, Leu179, Gly180, Cys181, Thr182, His183, Phe184, Pro185, Leu186, Ile208, His209, Ser210, Gly211, and Asp212 of a second domain of SEQ ID NO: 2.

11. (Currently Amended) A crystal of *Helicobacter pylori* (*H. pylori*) glutamate racemase (MurI) of SEQ ID NO:2 complexed with a glutamate substrate and an inhibitor ~~The crystal of claim 6~~, wherein the inhibitor binding site comprises amino acid residues Val10, Gly11, Phe13, Ile149, Glu151, Ser152, Leu186, Trp244, Gln248, and Trp252 of SEQ ID NO: 2.

12.- 47. (Canceled)

48. (New) A crystal of *Helicobacter pylori* glutamate racemase (MurI) complexed with a glutamate substrate comprising the monoclinic space group $P2_1$ and has cell dimensions of $a = 59.20 \text{ \AA}$, $b = 82.40 \text{ \AA}$ and $c = 106.50 \text{ \AA}$, wherein $\alpha = 90^\circ$, $\beta = 92.15^\circ$, and $\gamma = 90^\circ$.

49. (New) A crystal of *Helicobacter pylori* glutamate racemase (MurI) complexed with a glutamate substrate comprising the monoclinic space group $P2_1$ and has cell dimensions of $a = 52.28 \text{ \AA}$, $b = 78.96 \text{ \AA}$ and $c = 59.14 \text{ \AA}$, wherein $\alpha = 90^\circ$, $\beta = 92.64^\circ$, and $\gamma = 90^\circ$.

50. (New) A crystal of *Helicobacter pylori* glutamate racemase (MurI) complexed with a glutamate substrate comprising the monoclinic space group $P2_1$ and has cell dimensions of $a = 52.02 \text{ \AA}$, $b = 80.66 \text{ \AA}$ and $c = 59.18 \text{ \AA}$, wherein $\alpha = 90^\circ$, $\beta = 92.65^\circ$, and $\gamma = 90^\circ$.

51. (New) A crystal of *Helicobacter pylori* glutamate racemase (MurI) complexed with a glutamate substrate comprising the monoclinic space group $P2_1$ and has cell dimensions of $a = 52.61 \text{ \AA}$, $b = 78.40 \text{ \AA}$, and $c = 59.43 \text{ \AA}$, and wherein $\alpha = 90^\circ$, $\beta = 92.33^\circ$, $\gamma = 90^\circ$.

52. (New) A crystal of *Helicobacter pylori* glutamate racemase (MurI) complexed with an inhibitor and a glutamate substrate the orthorhombic space group $P2_12_12_1$ and has cell dimensions of $a = 61.41 \text{ \AA}$, $b = 76.31 \text{ \AA}$ and $c = 108.92 \text{ \AA}$, wherein $\alpha = 90^\circ$, $\beta = 90^\circ$, and $\gamma = 90^\circ$.

53. (New) A crystal of *Helicobacter pylori* glutamate racemase (MurI) MurI complexed with an inhibitor and a glutamate substrate comprising the orthorhombic space group $P2_12_12_1$, and having cell dimensions $a = 60.7 \text{ \AA}$, $b = 77.5 \text{ \AA}$, $c = 56.6 \text{ \AA}$, and $\alpha = 90^\circ$, $\beta = 90^\circ$, and $\gamma = 90^\circ$.

54. (New) A crystal of *Helicobacter pylori* glutamate racemase (MurI) complexed with an inhibitor and a glutamate substrate comprising monoclinic space group P2₁, and having cell dimensions $a = 57.1 \text{ \AA}$, $b = 78.0 \text{ \AA}$, $c = 58.55 \text{ \AA}$, and $\alpha = 90^\circ$, $\beta = 97.91^\circ$, and $\gamma = 90^\circ$.

55. (New) A crystal of *Helicobacter pylori* MurI complexed with an inhibitor and a glutamate substrate comprising the monoclinic space group P2₁ and has cell dimensions of $a = 62.9 \text{ \AA}$, $b = 81.8 \text{ \AA}$, and $c = 113.6 \text{ \AA}$, and wherein $\alpha = 90^\circ$, $\beta = 90^\circ$, $\gamma = 90^\circ$.

56. (New) A crystal of *Helicobacter pylori* MurI complexed with an inhibitor and a glutamate substrate comprising the orthorhombic space group P2₁2₁2₁ and has cell dimensions of $a = 62.14 \text{ \AA}$, $b = 81.07 \text{ \AA}$ and $c = 113.82 \text{ \AA}$, wherein $\alpha = 90^\circ$, $\beta = 90^\circ$, and $\gamma = 90^\circ$.

57. (New) A crystal of *Helicobacter pylori* glutamate racemase (MurI) complexed with a glutamate substrate represented by the structure coordinates in Figure 5.

58. (New) A crystal of *Helicobacter pylori* glutamate racemase (MurI) complexed with a glutamate substrate and inhibitor represented by the structure coordinates in Figure 6.